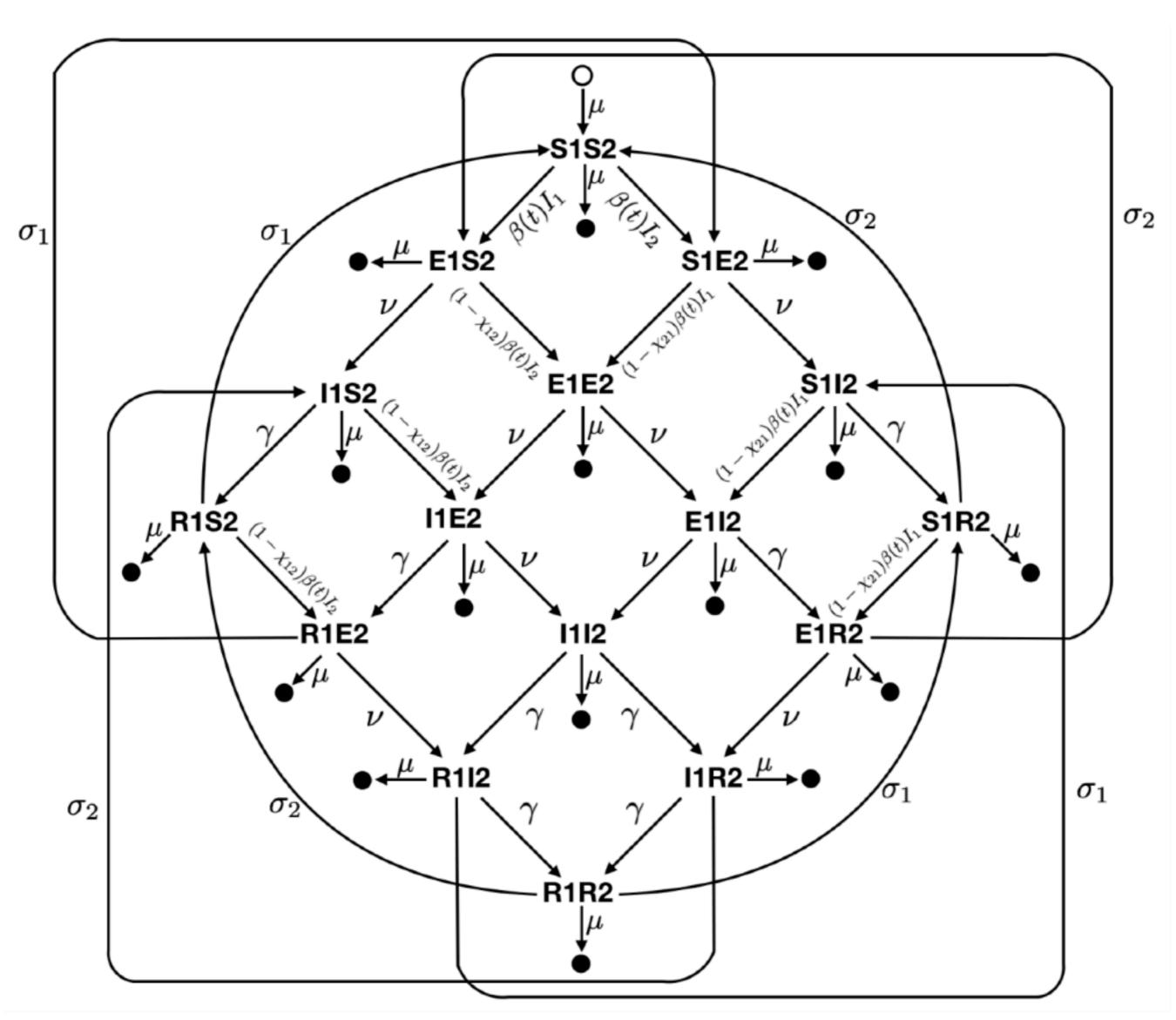
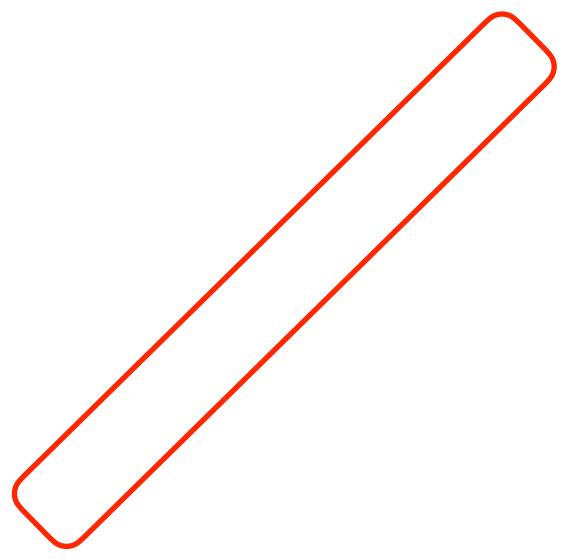
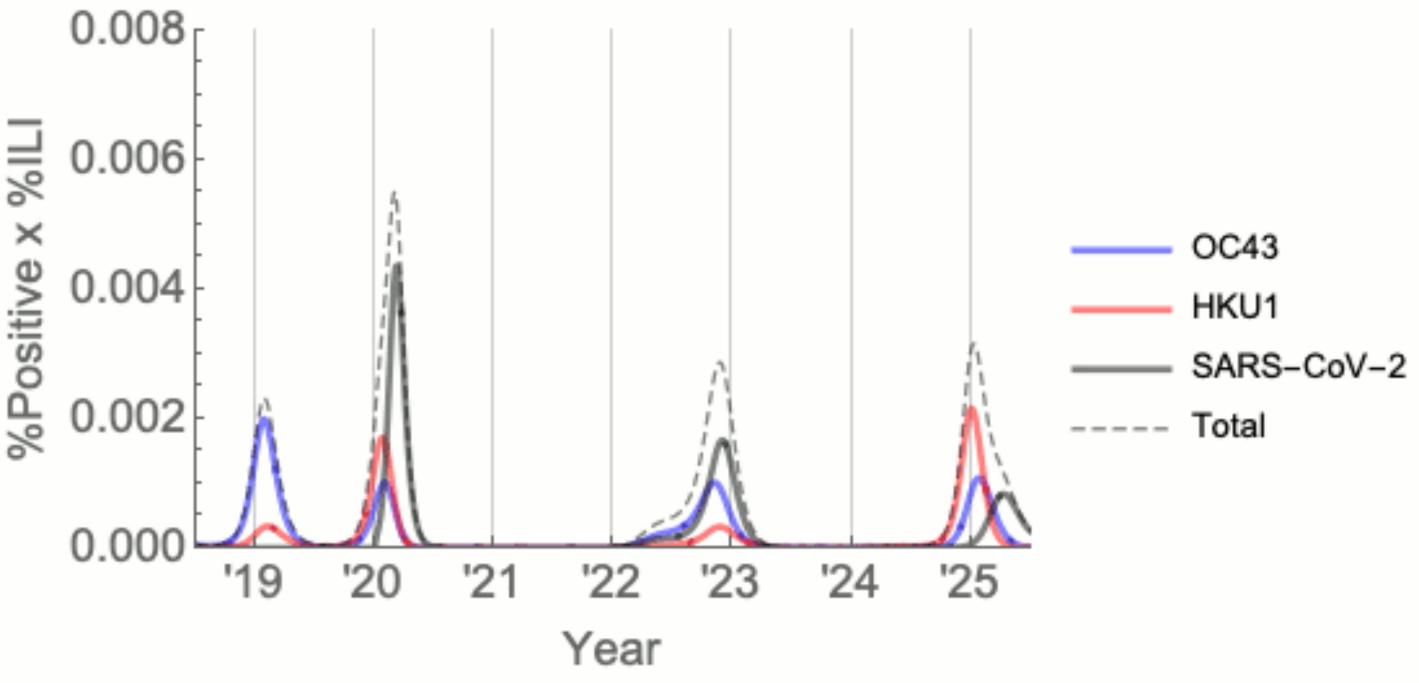
The full model



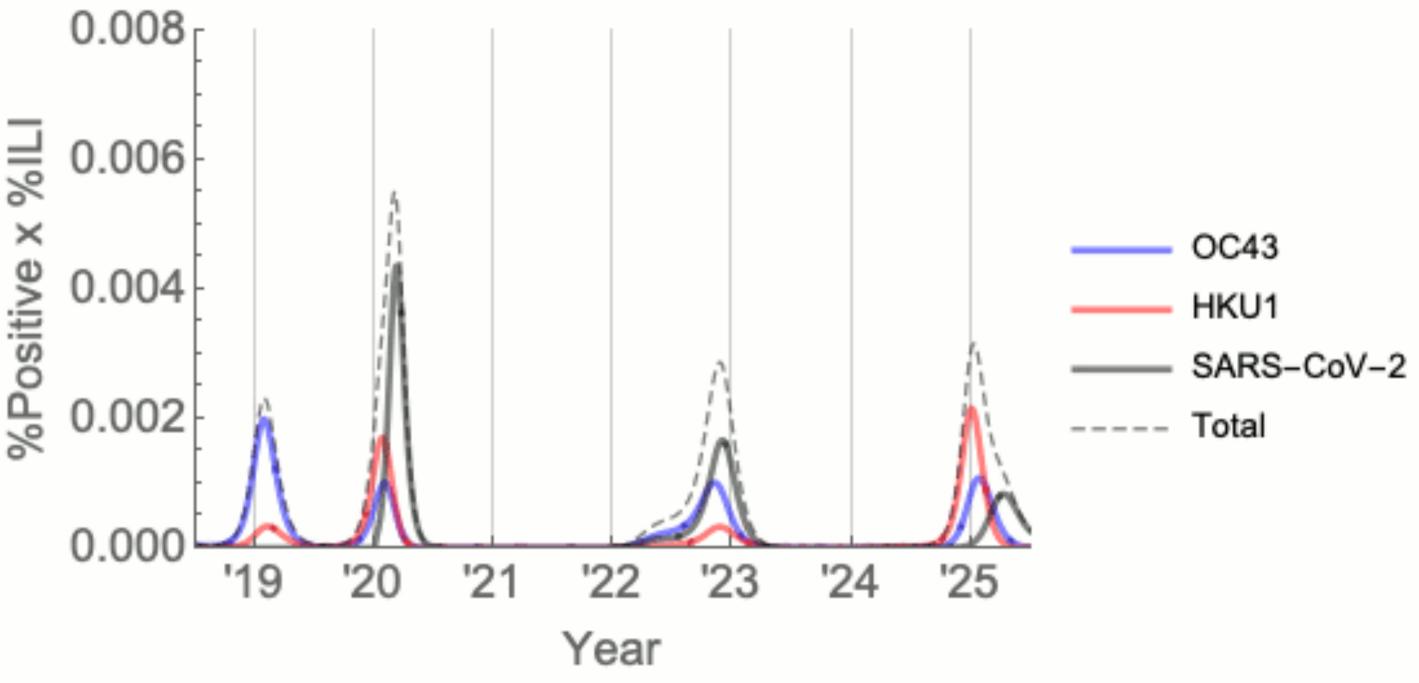


The introduction time can profoundly affect the long-term dynamics!

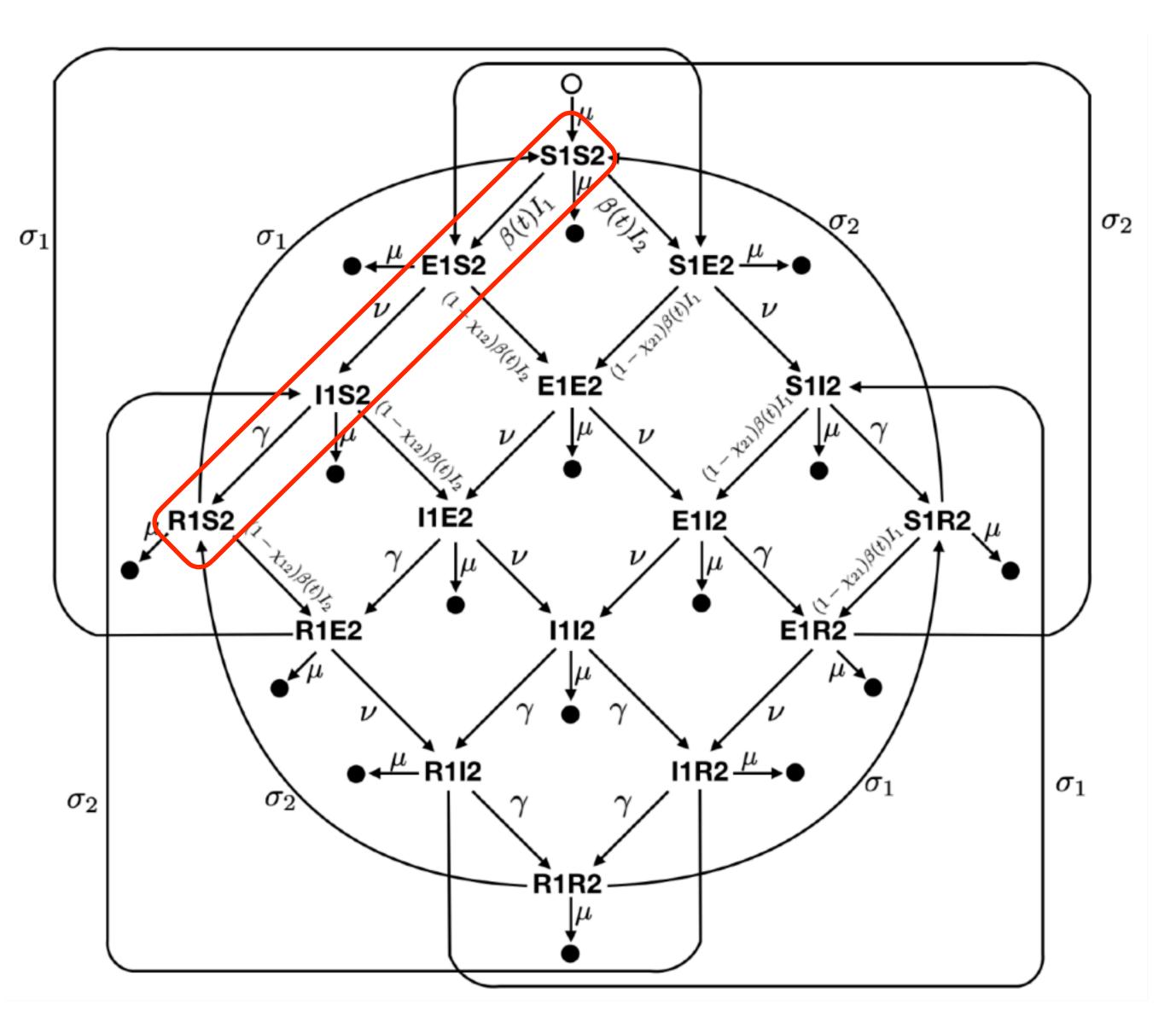


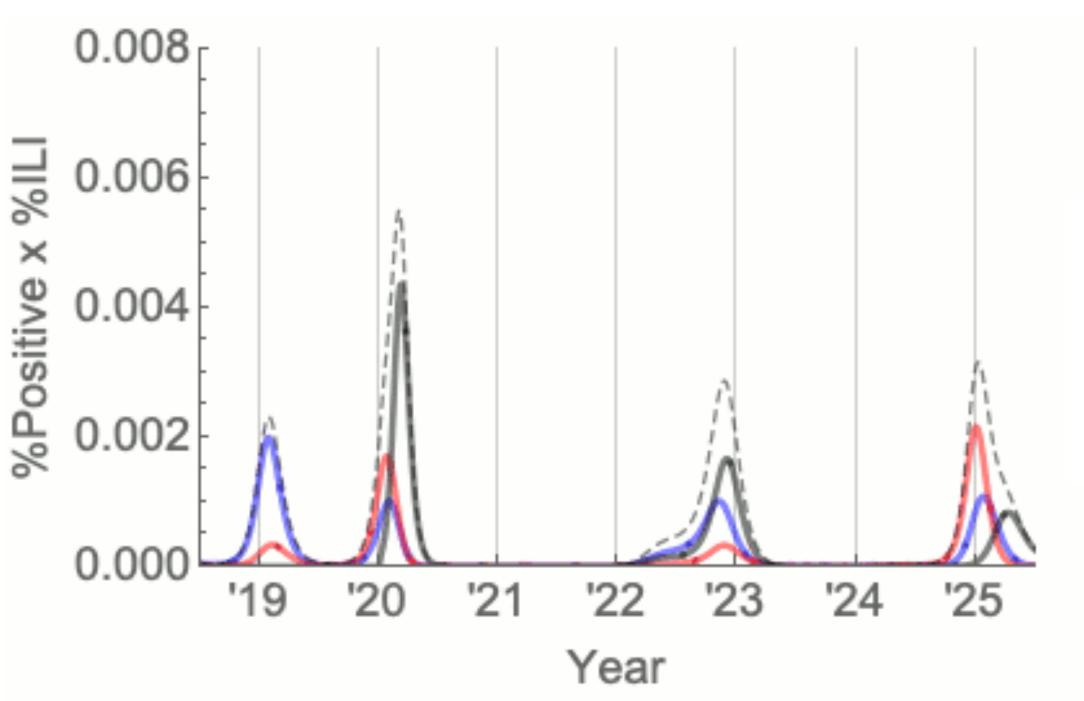


Model analysis



The full model





The introduction time can profoundly affect the long-term dynamics!

Returning to our main questions

- Will SARS-CoV-2 spread in the summer months?
 Yep.
- Will SARS-CoV-2 enter into long-term seasonal circulation? Probably!
- How would cross-immunity from the other coronaviruses affect the pandemic?
 In some pretty wild and unexpected ways
- If we can't answer these questions now what information do we need?
 - Longitudinal serology (to get duration of immunity)
 - Antibody studies and epi studies to measure cross-immunity

What else? Which other scenarios would you explore?